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CC23 Controlling Wind and Water Erosion

Controlling ~~STACKS~~ WIND and WATER EROSION

THE UNIVERSITY OF NEBRASKA AGRICULTURAL COLLEGE EXTENSION SERVICE
U. S. DEPARTMENT OF AGRICULTURE CO-OPERATING
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Control Wind and Water Erosion

Emergency Measures against Wind:

LISTING is one of the most effective practices for the control of soil blowing. If no crop is present, list the entire field. Striplist fall wheat or rye where blowing has started.

STRIPPING with cultivators, plows, ditchers, or other machinery may be substituted where listers are not available.

HEAVY MANURE, rotting straw, or hay may be used for stripping.

SMALL SPOTS that are blowing may be covered with manure or other material that will stay in place.

DO NOT USE the disk except for light surface blowing where the soil underneath is moist and will turn up lumpy.

CAUTIOUS USE of the harrow is necessary on soil subject to blowing. It may pulverize the soil and increase blowing.

LIVESTOCK should be kept from all fields not well covered with vegetation. Tramping increases blowing. Do not permit livestock to destroy existing vegetative cover.

Detailed information regarding erosion control practices may be had by applying to your County Agricultural Agent or by writing to the College of Agriculture, Lincoln, Nebraska.

Preventive Measures against Wind Erosion:

The following measures may be adopted during the growing season to prevent subsequent blowing:

GOOD VEGETATIVE COVER is the best means of wind-erosion control.

TALL, THICK STUBBLE of small grains, if not pastured, will prevent blowing and will catch and hold snow or rain water.

THICK STUBBLE of sudan or other sorghums, even when planted in rows as much as 42 inches apart, will help control blowing.

STRIPS of six or eight rows of standing stalks, where corn or sorghum is cut for fodder or silage, should be left at intervals of five to ten rods, depending on the number and the size of the stalks.

GO-DOWN crops of sweet sorghum, sudan grass, or rye planted at the common rate and permitted to mature and remain on the land without pasturing through the fall and winter are effective in the prevention of blowing soil.

NATURAL WEED GROWTH provides an excellent cover and prevents blowing.

ALTERNATE STRIPPING of tilled row crops and protective crops (small grains, legumes, grasses, etc.) at intervals of three to twenty rods in width at right angles to the prevailing wind, tends to reduce blowing. Other approved stripping practices: (*a*) alternate stripping of wheat and fallow, (*b*) alternate stripping of corn and weed fallow, (*c*) alternate stripping of sorghum, fallow, and wheat, (*d*) alternate stripping of wheat and potatoes or beans.

FOR SUMMER FALLOW use machinery that will keep crop residues and clods on the surface. Continuous use of the disk or other machinery that pulverizes the soil should be avoided.

ONE OR MORE ROWS of trees, with the plantings spaced 20 to 40 rods apart at right angles to the prevailing wind, form an effective and permanent wind erosion control.

BURNING CROP or weed residues destroys valuable organic material, thus making the soil more subject to both wind and water erosion.

Measures against Water Erosion:

USE OF LEGUMES, grasses, and manure in crop rotations tends to increase water absorption and resistance of the soil to erosion.

CROP RESIDUES left or placed on top of the soil greatly increase the rate of water absorption. Special duckfoot cultivators may be used to destroy weeds but leave the residues on the surface.

CONTOUR PLANTING of intertilled crops is an effective means of water erosion control. Contours should be carefully laid out and consideration given to disposal of flood waters by means of protected waterways.

CONTOUR SEEDING of small grains, particularly with furrow drills, reduces runoff and erosion.

CONTOUR LISTING, contour basin listing, pit cultivation, and modifications of these practices are, under certain conditions, very effective in the conservation of soil and moisture.

STANDARD TERRACES and diversion terraces may be used very effectively on some fields.

GULLIES that cannot be crossed with machinery may be controlled by fencing and planting to grass, trees, and shrubs. Special structures, such as concrete and rubble masonry, check dams or drops, sod dams, and diversion dikes may also be used.

PASTURE FURROWS and diversion dikes or dams, which divert water from natural channels and spread it on grass land, reduce erosion, conserve rain and snow water, and improve vegetation.

RESTING NATIVE PASTURES from early spring until the grasses have seeded increases the stand and growth of grass, thus reducing runoff and erosion.

FIELD DRAWS or natural waterways should not be cultivated but kept in vegetation permanently to provide a nonerosible channel for flood waters. Draws not well vegetated should be seeded to sudan or cane, and later established in permanent grass when seeding conditions are favorable.

OVERGRAZING and tramping of stubble fields and cornstalks destroy valuable cover, increase both wind and water erosion, and reduce soil moisture.

BADLY ERODED AREAS should be seeded to temporary or permanent pasture and grazed lightly, or planted to "go down" crops.

DO NOT BURN crop or weed residues. Burning destroys valuable organic material and makes the soil more subject to both wind and water erosion.

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